

Amendments to the Claims:

The listing of the claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (currently amended): Water-in-oil micro-emulsion, with binary phase differentiability and active substance differentiability, wherein it is free of cross-linking agents and comprises

- a) 45 to 90 wt.-% of a liquid oil phase;
- b) 5 to 40 wt.-% of a mixture of one or more W/O and one or more O/W surfactants, in a ratio of 1:4 to 1:1.2;
- c) 0.01 to 20 wt.-% of one or more emulsifiers;
- d) 0.00 to 15 wt.-% of at least one alcohol selected from

the group consisting of or more monovalent or bivalent C1-8 alcohols, hexane diol, and octane diol;

- e) 1 to 10 wt.-% water or aqueous solutions, whereby wherein the micelles of this primary micro-emulsion have a particle size of 20 to 400 nm, and the emulsion can be optionally converted is convertible to a secondary W/O micro-emulsion or an O/W micro-emulsion, by means of reaction with an aqueous phase.

Claim 2 (previously presented): Water-in-oil micro-emulsion as recited in claim 1, wherein it contains 0 to 30 wt.-% of one or more active substances soluble in water or soluble in fat, or mixtures of active substances soluble in water and soluble in fat.

Claim 3 (previously presented): Water-in-oil micro-emulsion as recited in claim 1, wherein in addition, 0 to 15 wt.-% additives are present.

Claim 4 (currently amended): Water-in-oil micro-emulsion as recited in claim 1, wherein it contains

- a) 50 to 80 wt.-% of an oil phase;
- b) 5 to 40 wt.-% of a mixture of one or more W/O and one or more O/W surfactants;
- c) 0.1 to 10 wt.-% of one or more lecithins, phosphatidyl cholines, ~~or derivatives~~ or mixtures thereof as an emulsifier;
- d) 0.0 to 10 wt.-% of at least one alcohol selected from the group consisting of ~~or more~~ monovalent ~~or bivalent~~ C1-8 alcohols, hexane diol, and octane diol;
- e) 1 to 10 wt.-% water or aqueous solutions.

Claim 5 (previously presented): Water-in-oil micro-emulsion as recited in claim 1, wherein it contains 0.01 to 15 wt.-% alcohol.

Claim 6 (previously presented): Water-in-oil micro-emulsion as recited in claim 1, wherein the W/O surfactant(s) is/are non-ionic and have an HLB value of 3 to 7, and that the O/W surfactant(s) is/are non-ionic and have an HLB value of 9 to 18.

Claim 7 (currently amended): Water-in-oil micro-emulsion as recited in claim ~~4~~ 4, wherein the lecithin, or phosphatidyl choline ~~or derivative thereof~~ is selected from among the group consisting of phosphatidyl choline, soy lecithin, egg lecithin, mixtures of phosphatidyl choline and lecithin in various proportions, or and mixtures thereof.

Claim 8 (currently amended): Water-in-oil micro-emulsion as recited in claim 1, wherein the alcohol is selected from among the group consisting of ethanol, isopropanol, butanol, ~~1,6-octane octane~~ diol, and ~~1,2-hexane hexane~~ diol.

Claim 9 (currently amended): Water-in-oil micro-emulsion as recited in claim 1, ~~wherein it contains~~ further comprising water-soluble active substances, which are selected from ~~among~~ the group consisting of amino acids, peptides, protein hydrolysates, proteins, saccharides, oligosaccharides, polysaccharides ~~and derivatives~~, hormones and substances similar to hormones, antioxidants, vitamins and pro-vitamins, AHA acids, NMF, oxidants, plant extracts, flavonoids, and plant polyphenols or and mixtures thereof.

Claim 10 (currently amended): Water-in-oil micro-emulsion as recited in claim 1, ~~wherein it contains~~ further comprising fat-soluble active ingredients that are selected from ~~among~~ the group consisting of antioxidants, vitamins and pro-vitamins, unsaturated fatty acids, ceramides, ether oils or and mixtures thereof.

Claim 11 (currently amended): Water-in-oil micro-emulsion as recited in claim 1, ~~wherein it~~ further comprising dermatologically effective agents, selected from ~~among~~ the group consisting of hormones and substances similar to hormones, antimycotics, scar treatment agents, tanning agents, tars,

keratinolytics, keratinoplastics, photocumarins, acelainic acid or and mixtures thereof.

Claim 12 (currently amended): Water-in-oil micro-emulsion as recited in claim 1, wherein further comprising additives selected from the group consisting of electrolytes, oxidants, chelating substances, diffusion reinforcing agents, penetration promoting agents, moisturizers or and mixtures thereof are contained as additives.

Claim 13 (currently amended): Water-in-oil micro-emulsion as recited in claim 1, wherein it contains further comprising biological oxygen carriers, selected from among the group consisting of native, modified, or and non-modified hemoglobin, myoglobin, or and mixtures thereof, in a total amount of 0.001 to 20 wt.-%.

Claim 14 (previously presented): Water-in-oil micro-emulsion as recited in claim 13, wherein it furthermore contains antioxidants, glutathione, super-oxide dismutase, melatonin, flavonoids, amino acids or mixtures thereof.

Claim 15 (previously presented): Water-in-oil micro-emulsion as recited in claim 13, wherein it furthermore contains glucose.

Claim 16 (previously presented): Water-in-oil micro-emulsion as recited in claim 1, wherein it additionally contains vitamins and pro-vitamins in an amount of 0.01 to 1.0 wt.-%.

Claim 17 (previously presented): Water-in-oil micro-emulsion as recited in claim 1, wherein it contains plant extracts in an amount of 0.1 wt.-% to 5 wt.-%, 0.1 wt.-% to 5 wt.-% ether oils, 0.1 wt.-% to 10 wt.-% AHA acids, 0.01 to 0.3 wt.-% hormones or substances similar to hormones, 0.1 to 5 wt.-% essential fatty acids, ceramides, or mixtures thereof.

Claim 18 (currently amended): Topically A topically applicable preparation ~~in the form of~~ comprising a mixture of a primary micro-emulsion having binary phase differentiability and active substance differentiability and being free of cross-linking agents, the micro-emulsion comprising a) 45 to 90 wt.-% of a liquid oil phase; b) 5 to 40 wt.-% of a mixture of one or more W/O and one or more O/W surfactants, in a ratio of

1:4 to 1:1.2; c) 0.01 to 20 wt.-% of one or more emulsifiers;
d) 0.00 to 15 wt.-% of at least one alcohol selected from the
group consisting of monovalent C1-8 alcohols, hexane diol, and
octane diol; and e) 1 to 10 wt.-% water or aqueous solutions,
wherein the micelles of this primary micro-emulsion have a
particle size of 20 to 400 nm, wherein it represents a
~~composition as recited in claim 1, or a mixture thereof with 0.1~~
~~to 90 wt.-% of an aqueous phase, whereby the preparation then~~
~~contains containing 1 to 50 wt.-% of the an oil phase and forming~~
a W/O micro-emulsion or an O/W micro-emulsion.

Claim 19 (previously presented): Method for the production of a micro-emulsion as recited in claim 1, wherein the oil phase, if applicable with fat-soluble active substances contained in it, containing the surfactant(s), the emulsifier(s), as well as the alcohol(s) and, if applicable, additives, and an aqueous phase, and, if applicable, the water-soluble active substance(s), if applicable additives, are mixed with one another at temperatures from 10 to 30°C, and the primary W/O micro-emulsion obtained in this manner is converted to a secondary W/O micro-emulsion or a secondary O/W micro-emulsion, if necessary with an aqueous phase that can contain additional water-soluble active substances, if applicable, and additives, if applicable.

Claim 20 (canceled).

Claim 21 (currently amended): Use The method as recited in claim 20 24, wherein skin that has been irritated or changed due to age is treated.

Claim 22 (currently amended): Use The method as recited in claim 21, wherein a preparation is used the micro-emulsion comprises 0 to 30 wt.-% of one or more active substances soluble in water or soluble in fat, or mixtures of active substances soluble in water and soluble in fat.

Claim 23 (currently amended): Use The method as recited in claim 20 24, wherein the emulsion preparation is liquid and is sprayed on or applied as a gel.

Claim 24 (new): A method for topically treating skin that has been irritated or damaged or has degenerated due to allergy, bacteria, immunology, or external influences comprising the steps of:

providing a cosmetic, dermatological, pharmaceutical preparation comprising a water-in-oil micro-emulsion having binary phase differentiability and active substance differentiability and being free of cross-linking agents, the micro-emulsion comprising a) 45 to 90 wt.-% of a liquid oil phase; b) 5 to 40 wt.-% of a mixture of one or more W/O and one or more O/W surfactants, in a ratio of 1:4 to 1:1.2; c) 0.01 to 20 wt.-% of one or more emulsifiers; d) 0.00 to 15 wt.-% of at least one alcohol selected from the group consisting of monovalent C1-8 alcohols, hexane diol, and octane diol; and e) 1 to 10 wt.-% water or aqueous solutions, wherein the micelles of this primary micro-emulsion have a particle size of 20 to 400 nm and the emulsion is convertible to a secondary W/O micro-emulsion or an O/W micro-emulsion, by means of reaction with an aqueous phase; and

applying the preparation topically to a person's skin.

Claim 25 (new): A cosmetic, dermatological, pharmaceutical preparation for topically treating skin that has been irritated or damaged or has degenerated due to allergy, bacteria, immunology, or external influences comprising a water-in-oil micro-emulsion having binary phase differentiability and active substance differentiability and being free of cross-linking

agents, the micro-emulsion comprising a) 45 to 90 wt.-% of a liquid oil phase; b) 5 to 40 wt.-% of a mixture of one or more W/O and one or more O/W surfactants, in a ratio of 1:4 to 1:1.2; c) 0.01 to 20 wt.-% of one or more emulsifiers; d) 0.00 to 15 wt.-% of at least one alcohol selected from the group consisting of monovalent C1-8 alcohols, hexane diol, and octane diol; and e) 1 to 10 wt.-% water or aqueous solutions, wherein the micelles of this primary micro-emulsion have a particle size of 20 to 400 nm and the emulsion is convertible to a secondary W/O micro-emulsion or an O/W micro-emulsion, by means of reaction with an aqueous phase.

Claim 26 (new): A method for treating and caring of hair comprising the steps of:

providing a preparation comprising a water-in-oil micro-emulsion having binary phase differentiability and active substance differentiability and being free of cross-linking agents, the micro-emulsion comprising a) 45 to 90 wt.-% of a liquid oil phase; b) 5 to 40 wt.-% of a mixture of one or more W/O and one or more O/W surfactants, in a ratio of 1:4 to 1:1.2; c) 0.01 to 20 wt.-% of one or more emulsifiers; d) 0.00 to 15 wt.-% of at least one alcohol selected from the group consisting of monovalent C1-8 alcohols, hexane diol, and octane diol; and e)

1 to 10 wt.-% water or aqueous solutions, wherein the micelles of this primary micro-emulsion have a particle size of 20 to 400 nm and the emulsion is convertible to a secondary W/O micro-emulsion or an O/W micro-emulsion, by means of reaction with an aqueous phase; and applying the preparation to a person's hair.

Claim 27 (new): A topically applicable preparation comprising a primary micro-emulsion having binary phase differentiability and active substance differentiability and being free of cross-linking agents, the micro-emulsion comprising a) 45 to 90 wt.-% of a liquid oil phase; b) 5 to 40 wt.-% of a mixture of one or more W/O and one or more O/W surfactants, in a ratio of 1:4 to 1:1.2; c) 0.01 to 20 wt.-% of one or more emulsifiers; d) 0.00 to 15 wt.-% of at least one alcohol selected from the group consisting of monovalent C1-8 alcohols, hexane diol, and octane diol; and e) 1 to 10 wt.-% water or aqueous solutions, wherein the micelles of this primary micro-emulsion have a particle size of 20 to 400 nm.